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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/690,829	10/23/2003	Mehrdad Hassanzadeh	Q78184	5420

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EXAMINER

PHAN, THIEM D

ART UNIT	PAPER NUMBER
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3729

DATE MAILED: 04/25/2006

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary	Application No. 10/690,829	Applicant(s) HASSANZADEH ET AL.	
	Examiner Tim Phan	Art Unit 3729	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 17 February 2006.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-27 is/are pending in the application.
- 4a) Of the above claim(s) 19-27 is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1-18 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
 Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
 Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☒ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
2. ☒ Certified copies of the priority documents have been received in Application No. 09,869,097.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- | | |
|---|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413)
Paper No(s)/Mail Date. _____ |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | 5) <input type="checkbox"/> Notice of Informal Patent Application (PTO-152) |
| 3) <input checked="" type="checkbox"/> Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)
Paper No(s)/Mail Date <u>10/23/03</u> | 6) <input type="checkbox"/> Other: _____ |

DETAILED ACTION

Election/Restrictions

1. Applicants' election without traverse of Group I, Claims 1-18, filed on 2/17/06, is acknowledged.

The Restriction mailed on 1/17/06 has been carefully reviewed and is held to be proper. Moreover Applicants did not distinctly and specifically point out any error in the Restriction Requirement. Accordingly, Claims 19-27 are withdrawn from further consideration pursuant to 37 CFR 1.142(b) as being drawn to a nonelected Group, there being no allowable generic or linking claim.

The Restriction filed on 1/17/06 is hereby **made Final**.

An Office Action on the merits of Claims 1-18 now follows.

Information Disclosure Statement

2. The listing of references in the specification "GB-A-2 073 965, DE-A-3 002 014, ..." (Page 2, lines 16+) is not a proper information disclosure statement. 37 CFR 1.98(b) requires a list of all patents, publications, or other information submitted for consideration by the Office, and MPEP § 609.04(a) states, "the list may not be incorporated into the specification but must be

submitted in a separate paper." Therefore, unless the references have been cited by the examiner on form PTO-892, they have not been considered.

Specification

3. The specification is objected to as failing to provide proper antecedent basis for the claimed subject matter. See 37 CFR 1.75(d)(1) and MPEP § 608.01(o). Correction of the following is required: In Claim 1, there is a limitation step of varistors touching each other, which is neither described nor referred to in the specification and drawings. Proper correction is required.

Claim Rejections - 35 USC § 112

4. The following is a quotation of the second paragraph of 35 U.S.C. 112:

The specification shall conclude with one or more claims particularly pointing out and distinctly claiming the subject matter which the applicant regards as his invention.

5. Claim 1 is rejected under 35 U.S.C. 112, second paragraph, as failing to set forth the subject matter which applicants regard as their invention. Evidence that claim 1 fails to correspond in scope with that which applicants regard as the invention can be found in the reply/specification filed on 10/23/03. In that paper, applicants have stated "possibly with spacers

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being interposed between at least some adjacent pairs of varistors 10" (Page 7, lines 34 & 35), and this statement indicates that the invention is different from what is defined in the claim because the varistors do not touch each other.

6. Claim 8 is rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention. Claim 8 recites the limitation "the outer envelope" in line 3. There is insufficient antecedent basis for this limitation in the claim.

Claim Rejections - 35 USC § 102

7. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

8. Claims 1-3, 5-14, 16 and 17, as best understood, are rejected under 35 U.S.C. 102(b) as being anticipated by Sakich et al (US 5,926,356).

With regard to claim 1, Sakich et al teach a process for making varistor-based surge arresters (Col. 1, lines 6-17)), comprising:

- making a stack of varistors (Fig. 2, 60 & 62; col. 4, lines 7-9) such that the varistors connect each other; and
- forming a coating (Fig. 1, 64) of composite material on the stack of varistors;
- wherein, between the steps of making the stack and forming the coating of composite material, the method includes the step of depositing a bead or film of flexible, adhesive, and dielectric material (Fig. 2, 110; col. 4, lines 37-41) on the previously-formed stack at interfaces between each adjacent pair of varistors where the varistors connect each other.

With regard to claim 2, Sakich et al teach that the beads of flexible, adhesive, and dielectric material are made on the basis of an elastomer or plastic (Fig. 2, 110; col. 4, lines 37-41).

With regard to claim 3, Sakich et al teach that the material constituting the beads (Fig. 2, 110; col. 4, lines 49-51) is adapted to eliminate all pockets of air from the interfaces between each adjacent pair of varistors, to prevent material penetrating into said interfaces, and to provide elastic bonding between the stack of varistors and the coating of composite material.

With regard to claim 5, Sakich et al teach that the material constituting the beads has no acetic acid.

With regard to claim 6, Sakich et al teach that the steps of depositing an outer envelope (Fig. 1, 58) on the coating of composite material and using said outer envelope as a mold for shaping the body of the arrestor by a radial compression effect during a polymerization step.

With regard to claim 7, Sakich et al teach that the outer envelope (Fig. 1, 58) possesses annular fins.

With regard to claim 8, Sakich et al teach the step of depositing beads of adhesive/sealing agent (Fig. 1, 130) on the coating of composite material (Fig. 1, 64) prior to installing an outer envelope (Fig. 1, 58).

With regard to claim 9, Sakich et al teach that the beads of adhesive/sealing agent (Fig. 1, 130; col. 5, lines 17-21) deposited on the coating of composite material are made of silicone mastic.

With regard to claim 10, Sakich et al teach that the beads of adhesive/sealing agent deposited on the coating of composite material are shaped as rings.

With regard to claim 11, Sakich et al teach that the coating of composite material (Fig. 1, 64) is wound helically.

With regard to claim 12, Sakich et al teach that the coating of composite material (Fig. 1, 64; col. 4, lines 10 & 11) is made by helically winding a preimpregnated woven tape or ceramic fiber with overlap of 50%.

With regard to claim 13, Sakich et al teach that the coating of composite material (Fig. 1, 64) has rings of preimpregnated woven tape deposited in register with the interfaces between adjacent pairs of varistors.

With regard to claim 14, Sakich et al teach that the arrestor also has an envelope (Fig. 1, 58) deposited on the coating of composite material (Fig. 1, 64) to reinforce the dielectric behavior of the arrestor.

With regard to claim 16, Sakich et al teach that the coating of composite material (Fig. 1, 64) is made under axial compression of the stack of varistors (Fig. 2, 60 & 62).

With regard to claim 17, Sakich et al teach that the varistors are not enameled.

Claim Rejections - 35 USC § 103

9. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

10. Claims 4 and 15 are rejected under 35 U.S.C. 103(a) as being unpatentable over Sakich et al.

With regard to claim 4, Sakich et al teach a process for making varistor-based surge arresters including the bead or film thickness less than 5mm (Col. 4, line 45), which reads on applicants' claimed invention; except for having its width of 5mm.

It is mere matter of design choice to have the bead or film width of 5mm or more and it appears that the bed or film with its width covering the entire surface of the varistors of Sakich et al would perform equally well without a width limitation.

With regard to claim 15, Sakich et al teach a process for making varistor-based surge arresters including the coating of composite material of a non-conductive winding or ceramic fiber (Col. 4, lines 10 & 11), which reads on applicants' claimed invention; except for having its composite material based on glass fibers and epoxy resin with a resin content lying in the range one-third to one-half by weight.

It is mere matter of design choice to have the composite material based on glass fibers and epoxy resin with a resin content lying in the range one-third to one-half by weight and it appears that the invention of Sakich et al would perform equally well wit a ceramic fiber composition.

11. Claim 18 is rejected under 35 U.S.C. 103(a) as being unpatentable over Sakich et al in view of Helgeland et al (US 3,645,784).

Sakich et al teach a process for making varistor-based surge arresters, which reads on applicants' claimed invention.

Helgeland et al teach a process of coating wire-wound resistor of vitreous or lead-free enamel in order to withstand increased stresses due to the different coefficients of expansion of the resistive elements and coating.

It would be obvious to one of ordinary skill in the art at the time the invention was made to combine the two teachings by applying the coating process with lead free enamel to resistive material, as taught by Helgeland et al and not its general structure, to the process for making varistor-based surge arresters, as taught by Sakich et al, in order to withstand increased stresses due to the different coefficients of expansion of the resistive elements and coating.

Conclusion

12. The prior art made of record and not relied upon is considered pertinent to applicant's disclosure.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Tim Phan whose telephone number is 571-272-4568. The examiner can normally be reached on M - F, 9AM - 5PM.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Peter Vo can be reached on 571-272-4690. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

Tim Phan
Examiner
Art Unit 3729

tp
April 20, 2006



A. DEXTER TUGBANG
PRIMARY EXAMINER